# OBJECT TRACKING BASED ON COLOR DISTRIBUTION

## ABSTRACT OF THE DISCLOSURE

5       A color modeling and color matching process and system is provided that uses the hue and saturation of color pixels, in conjunction with the intensity of gray or near-gray pixels, to characterize targets and images. A target is characterized by a histogram of hues and saturation within the target image, with a greater distinction being provided to the hues. Recognizing that the hue of gray, or near-gray, picture elements is highly sensitive to noise, the gray or near-gray

10     pixels are encoded as a histogram of intensity, rather than hue or saturation. The target tracking system searches for the occurrence of a similar set of coincident color-hue-saturation and gray-intensity histograms within each of the image frames of a series of image frames.